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| 10/500,374      | 10/28/2004  | Yukio Mori           | 70594-030           | 7554             |

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| EXAMINER |
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TRAN, THUY V

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| ART UNIT | PAPER NUMBER |
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2821

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 12/22/2006 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/500,374

Applicant(s)

MORI ET AL.

Examiner

Thuy V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on response submitted on 10/05/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 8-16 is/are pending in the application.
- 4a) Of the above claim(s) 12-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 3-5 and 8-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/28/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

This Office Action is responsive to the Applicants' Response to Election/Restriction Requirement submitted on 10/05/2006. In virtue of this Response, original claims 2 and 6-7 were previously canceled, and the Invention of Group I including claims 1, 3-5, and 8-11 is elected without traverse See Paragraphs 8 & 9 below for details.

A part of the Election/Restriction Requirement mailed 09/07/2006 is being transferred hereto for convenience in review:

#### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1, 3-5, and 8-11, drawn to a luminance control circuit for an organic electroluminescence display and a corresponding method thereof; classified in 315/169.3; and

Group II, claims 12-16, drawn to the structures of portable telephone sets; classified in 455/566.

2. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: In the instant case, the different inventions Groups I and II have disparate configurations and modes of operation: one is arranged with a D/A converter for converting a digital video input signal into an analog video output signal and a

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reference control circuit for controlling a reference voltage supplied thereto on the basis of the digital video input signal in order to control the luminance or brightness of an organic electroluminescence display, while the other is arranged with a camera having an automatic exposure control function, judgment means or detection means, an organic electroluminescence display, and a display luminance control means in order to control the display luminance of the organic electroluminescence display on the basis of the peripheral brightness or that of the direction of the display surface.

3. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Fig. 9, including claims 12-14; and

Fig. 11, including claims 15-16.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after

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the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

4. The claims are deemed to correspond to the species listed above in the following manner:

Fig. 9, including claims 12-14; and

Fig. 11, including claims 15-16.

The following claim(s) are generic: none.

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: The embodiment of Fig. 11 shows a direction sensor [207] for detecting the direction of a display surface of the organic electroluminescence display and the luminance or brightness of the display is controlled based on such a detected direction, while the embodiment of Fig. 9 does not require such an arrangement.

6. A telephone call was made to Mr. Brian K. Seidleck on 08/30/2006 to request an oral election to the above restriction requirement, but did not result in an election being made.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

7. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Reply to Applicants' response to restriction requirement***

8. Applicants' election of the Invention Group I including claims 1, 3-5, and 8-11 in the reply filed on 10/05/2006 is acknowledged. Because applicants did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

9. Claims 12-16 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention Group II, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 10/05/2006.

***Priority***

10. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statements***

11. The information disclosure statements (IDSs) submitted on 06/28/2004 and 10/28/2004 are in compliance with the provisions of 37 CFR 1.97. Accordingly, these information disclosure statements are being considered by the examiner.

***Inventorship***

12. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

***Drawings Objection***

13. The drawings are objected to because Figs. 1 and 2 are not labeled correctly.

14. Figures 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Objections/ Minor Informalities***

15. Claims 1 and 4-5 are objected to because of the following informalities:

Claim 1, line 3, "screen" should be changed to --frame-- (for consistency of terminology, in light of the submitted specification, e.g. in lines 4-5, 20, 22, and 24-25, etc.);

Claim 1, line 5, "the" (first occurrence) should be changed to --an--;

Claim 4, line 4, "the" (first occurrence) should be changed to --a--;

Claim 4, line 6, "the" (first occurrence) should be changed to --a--;

Claim 5, line 7, "the" (first occurrence) should be changed to --a--;

Claim 5, line 10, "screen" should be changed to --frame--;

Claim 5, line 15, "the" (first occurrence) should be changed to --a--; and

Claim 5, line 17, "the" (first occurrence) should be changed to --a--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

*(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.*

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the

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reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

17. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Ishizuka (U.S. Patent No. 6,479,940 B1).

With respect to claim 1, Ishizuka discloses, in Figs. 3 and 6A-B, an organic electroluminescence display and a corresponding luminance control method comprising (1) a first step of calculating a luminance accumulation value (which is “AVERAGE LUMINANCE”; see Figs. 6A-B) for each frame (or each screen as claimed; see Figs. 6A-B) on the basis of a video input signal (see “VIDEO SIGNAL” at the input of [21] in Fig. 3); and (2) a second step of controlling (via [22, 23, 24, 25, 26]; see Fig. 3) an amplitude of the video input signal on the basis of the luminance accumulation value calculated in the first step, and feeding to the organic electroluminescence display [30] the video signal whose amplitude has been controlled, and in that in the second step, the amplitude of the video input signal is controlled, when the luminance accumulation value (e.g. “AVERAGE LUMINANCE” value of 1.0; see Figs. 6A-B) calculated in the first step exceeds a predetermined value (which is a 0.5; see Figs. 6A-B), such that inherently the larger the difference between the luminance accumulation value and the predetermined value is, the smaller the amplitude of the video input signal becomes (saying “inherently” since the digital signal obtained by A/D converter is used as a control signal which relates to the display luminance; see Fig. 1 and col. 2, lines 45-58).

***Allowable Subject Matter***

18. Claims 5 and 8-11 would be allowed if corrected to overcome the objections set forth in this Office Action.

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19. Claims 3-4 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter:

Prior art fails to disclose or fairly suggest:

- A luminance control method for organic electroluminescence display characterized in that, in the second step, a reference voltage supplied to a digital-to-analog converter for converting the digital video input signal into an analog video signal is controlled on the basis of the luminance accumulation value in the first step, to control the amplitude of the video input signal, in combination with the remaining claimed limitations as called for in claim 3 (claim 4 would be allowable since it is dependent on claim 3); and
- A luminance control circuit for an organic electroluminescence display comprising a digital-to-analog converter for converting a digital video input signal into an analog video output signal on the basis of input/output characteristics defined by a given reference voltage, and feeding the analog video output signal to the organic electroluminescence display, and a reference voltage control circuit for controlling a reference voltage supplied to the digital-to-analog converter on the basis of the digital video input signal, and in that the reference voltage supplied to the digital-to-analog converter includes a black-side reference voltage for defining a light emitting luminance corresponding the a black level of the input signal and a white side reference voltage for defining a light emitting luminance corresponding to a white

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level of the input signal, in combination with the remaining claimed limitations as called for in independent claim 5 (claims 8-11 would be allowed if claim 5 is corrected to overcome the objection set forth above, since they are dependent on claim 5).

*Citation of relevant prior art*

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Prior art Greene et al. (U.S. Patent No. 6,271,825 B1) discloses a correction apparatus and a correction method for brightness in displays; and

Prior art Greene et al. (U.S. Patent No. 5,668,569) discloses display with luminance-correcting capability.

*Inquiry*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -4:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy P. Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

12/14/2006



**THUY V. TRAN**  
**PRIMARY EXAMINER**